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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,558	03/29/2004	Yoshio Ishii	04110/0201116-USO	4103
7278 7590 02/06/2008 DARBY & DARBY P.C. P.O. BOX 770 Church Street Station New York, NY 10008-0770			EXAMINER WEINSTEIN, LEONARD J	
			ART UNIT 3746	PAPER NUMBER
			MAIL DATE 02/06/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/813,558	Applicant(s) ISHII ET AL.	
	Examiner LEONARD J. WEINSTEIN	Art Unit 3746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3-5 and 7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This office action is in response to the amendment of October 30, 2007. In making the below rejections and/or objections the examiner has considered and addressed each of the applicant's arguments.
2. The examiner acknowledges the amendments to claims 1, 3-5, and 7 and the cancellation of claims 2 and 6.

### *Claim Objections*

3. Claim 5 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 5 does not clearly set forth an independent claim for a separate invention or a limitation that is dependent on claim 1. For the purposes of examination, the examiner will consider claim 5 to be an independent claim for a separate invention including a component requiring all the limitations of claim 1.

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 3-5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Elson et al. 5,466,229. Elson teaches all the limitations as claimed for **[claim 5] a vacuum degassing apparatus comprising [claim 1] a vacuum control system and [claim 3] a constant circulation resistance tube including: [claim 5] a gas permeation diaphragm 136 for**

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removing dissolved gas from liquid isolated by reducing the inside pressure of a vacuum vessel 12 including the gas permeation diaphragm 136 with an exhaust vacuum pump 14; **[claims 1 and 5]** a vacuum degassing apparatus employing **[claims 1]** a controller 18 for monitoring the inside pressure of a vacuum vessel 12 using a pressure sensor 236, and controlling a voltage applied to the DC brushless motor 44 on the basis of an output signal resulting from measurement of the inside pressure of the vacuum vessel 12 by the pressure sensor 236 to control the displacement of an exhaust vacuum pump 14 (col. 11 ll. 25-38), and an air introduction device 98 inserted in a vacuum exhaust path 72 connecting the vacuum vessel 12 to the exhaust vacuum pump 14 for continuously introducing a controlled amount of air into the vacuum exhaust path 72, wherein the controller 18 is operable to hold the degree of vacuum in the vacuum vessel constant (col. 11 ll. 25-38); **[claims 3, 4, 7]** a air introduction device 98 provided including a constant circulation resistance tube 68 which is formed by coaxially inserting a resistance adjusting rod 88 into a hollow capillary 26 and which can control a flow rate of gas circulating between an inner circumference of the hollow capillary 26 and an outer circumference of the resistance adjusting rod 88, by adjusting a circulation resistance of the gas via elements 92, 93 and 96, wherein the circulation resistance can be adjusted by varying an insertion length of the resistance adjusting rod 88 inserted into the hollow capillary 26 and can be fixed by fitting a separation preventing short tube 74 to an outer circumference of the hollow capillary 26 at an opening end, on a side from where element 104 extends as shown in figure 5a.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1, 3-5, and 7 have been considered but are moot in view of the new ground(s) of rejection.

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***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LEONARD J. WEINSTEIN whose telephone number is (571)272-9961. The examiner can normally be reached on Monday - Thursday 7:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Karmer can be reached on (571) 272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



LJW

**DEVON C. KRAIER**  
**PATENT EXAMINER**

  
2/4/08